## ABSTRACT

The design method of the optical system according to the present invention comprises a step (S1) for setting an optical parameter in a design state in which a production error has not been taken into consideration, a step (S2) for making/renewing a production state where an optical parameter in a production state is made by adding the production error to the optical parameter in the design state, or the production error of the optical parameter in an existing production state is renewed, a step (S3) for making an evaluation function which makes the evaluation function and a step (S4) for performing optimization which determines an optimal optical parameter by optimizing the evaluation function.